THE GENESEE FARMER.

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Published by Luther Tucker.

TERMS.—The Farmer is published every Saturday, making an annual volume of 416 pages, to which is added a Title-page and Index, at the low price of $2,50, or $2,00 if payment is made at the time of subscribing.

☞ All subscribers must commence with the volume, Jan 1, or with the half volume, July 1. No subscription taken for less than six months.

THE GENESEE FARMER.

SATURDAY, DEC. 26, 1835.

☞ This number completes the Fifth Volume of the Genesee Farmer; and subscribers who do not wish to receive the next volume, are particularly requested to give immediate notice. This they may do without the expense of postage, by giving notice at the post-office where they receive their papers, when it will become the duty of the postmaster to transmit the notice to us. Heretofore we have annually suffered a heavy loss by want of proper attention to this matter. Many have taken the paper several weeks, and some three months, into the new volume, and then informed us that they meant to have had their paper discontinued, and should take them no longer.

☞ *No paper will be discontinued* without the *payment of all arrearages.* Many have heretofore ordered their papers stopt without paying their accounts. We have no way to collect these small demands, and have come to the conclusion to publish the names of all such as thus endeavor to defraud us of the fruits of our labor.

THE MONTHLY GENESEE FARMER AND HORTICULTURIST.

The Publisher of the Genesee Farmer, at the solicitation of many friends of Agricultural improvement in Western New-York, has issued the first number (for January, 1836,) of a monthly periodical, under the above title, which, while it will embody much of the most practical matter of that well established paper, will be furnished to subscribers at the exceeding low price of FIFTY CENTS A YEAR. To those who are acquainted with the course and standing of the GENESEE FARMER, we trust no exposition of the nature and merit of the MONTHLY FARMER AND HORTICULTURIST will be necessary; to those farmers who are not, we would respectfully submit the following reasons why the proposed paper should receive their prompt and liberal support.

The present may be appropriately termed the age of experiment—bold, perserving, and we add with pleasure, in many instances successful experiment. The world, both physical and moral, appears to be in motion, and the direction is onward. No course of proceeding, whatever may be its sanctions, is allowed to escape without investigation—no error, whatever may be its antiquity, can hope for impunity—no dogma, however venerable, but must submit to a thorough reexamination. The disposition to follow whereever truth leads, in defiance of preconceived opinions or prejudices, is becoming general; and, if tempered by caution, and directed by knowledge, cannot fail to be productive of the happiest results. So far as the great mass of the people are immediately concerned, the beneficial influence of this state of things is most apparent on the pursuits of Education and Agriculture,—two points indeed of immense importance, as on them the happiness and prosperity of the country unquestionably rest. That AGRICULTURE is the basis on which the whole structure of civilization and society reposes, is too generally admitted to need the advancement of a single proof. The whole page of History is covered with evidence, that, as Agriculture has advanced—as the farming body,—the great class of producers,—has been intellectual and intelligent, such, in exact proportion, has been the march of national wealth and civilized society. In a country like ours, where the supreme power is in the hands of the people, where the farmer is the owner of the soil he cultivates, where every motive that can excite honorable emulation in the human bosom exists in full activity, to remain ignorant of his particular interests, and the best methods of advancing them, betrays a want of self-respect, pardonable indeed in a Russian boor or an Austrian serf, but wholly out of place in a man who holds the proud rank of an American proprietor and cultivator of the soil.

That Agriculture has made great advances within a few years, no one acquainted with the subject will deny—that it has reached perfection, there is as few would venture to assert. To attain the highest possible excellence in his laudable profession—to obtain the greatest product from the smallest quantity of land—to realize the highest profit from the smallest capital—to reduce Agriculture to a science and a certainty, should be the object of every farmer. For one man, or for a few men, to accomplish so mighty a work, is not to be expected; it requires the united effort of the whole farming community; concentrated, intelligent, untiring effort. Public spirited individuals have done much, Agricultural Societies have done much, Journals devoted to Agriculture have done more, and to these three influential causes we must continue to look for a still more rapid and successful progress. To such men as POWEL, THOMAS, BUEL, BRADLEY, COLMAN, ALLEN, STIMSON, and others, men who may be considered the pioneers in this country, of a system of Agriculture based on experiment, and successful beyond all precedent, the country certainly owes a large debt of gratitude. It is to the experience of such men, and the publication of their experience in farming, that the intelligent farmer owes his freedom from many absurd and injurious processes in farming, and the introduction of more rational, and therefore more successful methods. Such men are the *book farmers*, against whom the ignorant and the prejudiced declaim, as innovators on the old fashioned modes of culture. It is to such men, and the spirit of inquiry that their labors have created through the medium of Agricultural Journals, that we owe the Cast Iron Plough, an instrument which has done for the cultivator, what the Steam Engine has for the navigator and mechanic—the Threshing Machine, and the Horse Rake—not to mention other implements, which have entirely superseded the laborious and bungling contrivances of former days. It was to perpetuate and extend this spirit and its results, that the GENESEE FARMER was established, and for which it has labored, how successfully the public must judge; and it is to place the knowledge and intelligence, so necessary for a profitable prosecution of his business, within the reach of every farmer, however limited his means at present, in Western New-York, or if possible in the United States, that we now issue proposals for THE MONTHLY FARMER AND HORTICULTURIST, a journal which we trust will be adapted to the wishes and the means of all. So numerous are the interests involved in a proper cultivation of the soil—so vital are they to the prosperity of the nation—and so rapid and various have been the improvements in this department of labor within a few years, that we are confident we could not place a more acceptable offering in the hands of our farmers, than a work which should illustrate the one, and record and exemplify the other—and such we intend the Monthly Farmer to be. While we shall hasten to lay before our subscribers every invention in farming implements, every mode of culture which promises to be successful, we shall not be so much influenced by the desire of novelty, as of practical utility—to be useful will be our end and aim; to instruct, rather than amuse, our design. Favored with a numerous list of contributors, embracing many of the most distinguished and successful farmers of the Union, we trust the interest of the work will not be suffered to falter, or its usefulness to decrease.

Among the great variety of subjects connected with farming, to which our columns will be devoted, the best breeds of Cattle both for draft and the dairy, and the best kinds of Sheep and the raising of wool, will receive particular attention. Gypsum or Plaster of Paris has become so essential an item in the successful cultivation of the soil, and is so intimately blended with Clover in all our Wheat districts, that the theory of its operation, and its practical utility, will be explained and properly enforced. The subject of Manures, their preparation and use, will not be overlooked. To the Wheat grower, the cultivation of Roots, as affording the means of keeping a far greater amount of stock than would otherwise be practicable, is becoming yearly more indispensable. On this topic we trust to be able to impart valuable information;—but it is to the important staple of our country, Wheat, that our columns shall be particularly devoted; and every thing that relates to quantity or quality, to varieties of seed, or the best methods of cultivation, to diseases, and the most effectual modes of preventing them, shall receive our earliest attention.

In commencing our new undertaking we rely with confidence on the public spirited gentlemen who have rendered us such essential service in the circulation of the Farmer, (and to all such we here tender our most grateful acknowledgments,) in bringing our Monthly publication to the notice of their farming friends. Believing it will repay the farmer tenfold the trifling sum it will annually cost, we wish to place a copy of it

in the hands of all; indeed it is evident that unless the circulation is very extensive it must be impossible to afford it at so very low a rate. We appeal to the farming community generally for support in our enterprise, and we trust our appeal will be met with an early, effectual, and therefore satisfactory response.

TERMS—The MONTHLY FARMER AND HORTICULTURIST is made up of selections from the GENESEE FARMER, (a weekly publication at $2,00 per year,) and published on the first of each month, forming with Title-page and Index, an annual volume of 200 pages, at the low price of FIFTY CENTS a year, *payable always in advance.*

☞ Seven copies for Three Dollars—Twelve for Five Dollars—or a commission of 20 per cent allowed to Agents on all sums amounting to $5,00 or more,—the money to be sent free of postage.

POSTAGE on this paper, one cent only to any part of this state, and 1½ cent to any place out of the state.

☞ By the liberality of the *Monroe County Agricultural Society*, the publisher is enabled to distribute 5000 copies of the first number of the MONTHLY FARMER as a specimen of the work, and all gentlemen to whom it is sent are most respectfully invited to act as agents for it, and to use their influence in obtaining a subscription for it in their neighborhood.

We shall be pleased to send specimen numbers of the MONTHLY FARMER, to any gentleman who will act as agent, and it would be highly gratifying to us to have every subscriber to the Weekly Farmer become an active agent for it, as by that means we should be enabled to give it a very extended circulation.

☞ The second number of the Monthly Farmer will be issued on the first of February, and it is therefore important that early returns should be made of the number of subscribers obtained.

A Good Beginning.

The following is an extract of a letter from a gentleman to whom we sent a few copies of the first number of the Monthly:

"Dear sir—I this afternoon received the numbers of the Monthly Genesee Farmer. Meeting a few of my neighbors, I showed them the specimens sent me, and obtained six subscribers. The idea pleases me of condensing the most important matters of the weekly Farmer, and publishing them at so cheap a rate, and be assured I shall use my endeavors to promote its circulation. I want you to send me ten more of the first number. There is to be a meeting of the citizens of this town on Monday next and I want them in time for that. I can do much better by having the work to show them. I am in hopes to get 20 subscribers in town. The names I will forward you in season for the next number."

☞ If all our friends would act thus promptly and efficiently, our most sanguine hopes in relation to the circulation of the Monthly would soon be realised.

☞ The Index and Title page of the Genesee Farmer will be forwarded to subscribers in the course of a week.

Monroe Agricultural Society.

At a meeting of the members of the Agricultural Society of the county of Monroe at the Monroe House in the city of Rochester, on Wednesday the 23d Dec. 1835, pursuant to public notice thereof given in the Genesee Farmer of the 19th instant.

The President not being in attendance, JESSE HAWLEY, one of the Vice Presidents, took the Chair, and Luther Tucker Secretary.

After having discussed the consideration of the disposition of the surplus funds of the Society remaining on hand, as presented to notice by the communications published in the Farmer, the following preamble and resolutions passed unanimously:

Whereas there are some surplus funds of the Agricultural Society of the county of Monroe which are lying dormant in the hands of the Treasurer.

And whereas they were designed for public use, originally to be distributed in premiums for the encouragement of Agricultural enterprize, but for the want of state appropriations to increase their amount, they have become useless for that purpose.

Therefore, resolved, that the Society appropriate the sum to encourage Mr. Luther Tucker to introduce and establish a cheap Monthly Genesee Farmer for a more general distribution among the Farmers of Monroe county, under the directions of Wm. Garbut, Esq., the President of the Society; authorizing him to draw his order for the amount thereof.

And further resolved, that the proceedings of the meeting be published in the next number of the Genesee Farmer. J. HAWLEY, *Ch'n.*

L. TUCKER, *Sec'y.*

On Cutting Hay.

We have received the following note, and solicit the favor of more particular information on this subject from our correspondents.

"I have seen a statement of the saving made by the use of straw cutters, in Newell's Catalogue of Agricultural Implements at Boston, which is certainly entitled to the notice of every person who keeps a horse. Twenty-five stage horses were employed between Newburyport and Boston. Hay at that time was very high, costing from 25 to 30 dollars a ton; and $780,97 is mentioned as the total saving by using the straw cutter for only *nine* months; yet the third of that sum ($260,32) is no trifling matter, and this would be the result if hay was only at 8 or 10 dollars a ton. Now divide that sum by the number of horses (25) and we shall have *a saving of more than* 10 *dollars on each horse.*

"I must remark that this statement however, relates to the years 1816 and 1817, and I should be pleased to see some estimates of a more recent date. Cannot some of your correspondents furnish such? and cannot they more fully explain how such a saving is made? Is it because the horses refuse to eat a part of the hay? If this is the chief ground of saving, I would inquire if there would be much saved to a farmer who has other live stock to eat the refuse? I think it very important that this subject should be well understood."

On Acid Soils.

When the "Essay on Calcareous Manures" was published in 1832, it was not known that any writer had countenanced the idea of *acid soils*, except the Earl of Dundonald. Some agriculturists of high character appeared to have utterly rejected the doctrine. In the last edition of this work however, the ingenious and persevering author has collected testimony of recent date in its favor; and one article written by Professor Rennie, we subjoin, but preceded by E. Ruffin's remarks.

"Since the first edition of this Essay (in January, 1832) I have first heard of a discovery, and of consequent investigation by men of science, which seem to furnish direct proof of what I have been contending for, viz. *the existence of a vegetable acid substance in soils and manures, generally diffused, and often in large proportions, and yet which had not been known or suspected by chemists previously.* The first intimation of this discovery which reached me was in the *Alphabet of Scientific Gardening* by Professor Rennie, published in London in 1833, from which the part relative to this subject will be quoted below. Since then I have been enabled to consult the late French work of Berzelius in which his views of *humic acid* are given more at length. The facts respecting humic acid, as concisely stated in the following quotation furnish strong confirmation of some of the opinions which I have endeavored to maintain."

"HUMIC ACID AND HUMIN.—In most chemical books, the terms *Ulmic Acid* and *Ulmin*, are used, from *Ulmus*, elm; but as its substance occurs in most, if not all plants, the name is bad. I prefer Sprengel's term from *Humus*, soil.

"This important substance was first discovered by Klaproth in a sort of gum from an elm; but it has since been found by Berzelius in all barks; by M. Braconnot in saw-dust, starch, and sugar: and what is still more interesting for our present purpose, it has been found by Sprengel and M. Polydore Boullay, to constitute *a leading principle in soils and manures. Humin* appears to be formed of carbon and hydrogen, and the *humic acid* of humin and oxygen. Pure humin is of a deep blackish brown, without taste or smell, and water dissolves it with great difficulty and in small quantities; consequently it cannot when pure, be available as food for plants.

"Humic acid however, which I may remark, *is not sour to the taste*, readily combines with many of the substances found in soils and manures, and not only renders them, but itself also, easy to be dissolved in water, which in their separate state could not take place. In this way *humic acid will combine with lime, potass, and ammonia, in the form of humates; and the smallest portion of these will render it soluble in water and fit to be taken up by the spongelets of the root fibers.*

"It appears to have been from ignorance of the important action of the humic acid in thus helping to dissolve earthy matters, that the older writers were so puzzled to discover how lime and potass got into plants; and it seems also to be this chiefly which is so vaguely treated of in the older books, under the names of *extractive, vegetable extract, mucilaginous matter*, and the

like. Saussure, for instance, filled a vessel with turf, and moistened it thoroughly with pure water, when by putting ten thousand parts of it by weight under a heavy press, and filtering and evaporating the fluid, he obtained twenty-six parts of what he termed *extract;* from ten thousand parts of well dunged and rich kitchen garden mold, he obtained ten parts of *extract;* and from ten thousand parts of good corn field mold, he obtained four parts of *extract.*

"M. Pollydore Boullay found that the liquid manure, drained from dung hills, contains a large proportion of humic acid, which accounts for its fertilizing properties so well known in China and on the continent; and he found it also in peat earth, and in varying proportions in all sorts of turf. It appears probable, from Gay-Lussac having found a similar acid (technically *Azumic acid*) on decomposing the prussic acid (technically *Hydrocyanic acid*) that the humic acid may be found in animal blood; and if so, it will account for its utility as a manure for vines. Dobereiner found the gallic acid convertible into the humic."

On Plant Lice. (*Aphides.*)

We continue our extracts from Professor Rennie's paper on this subject; and recall the reader's attention to the artificial method of destroying these depredators.

"In the case of plants which cannot be conveniently smoked, tobacco in finer powder than snuff, should be strewed on the leaves when they are moistened with dew or rain; or tabacco water may be squirted over them by means of a syringe, or a garden engine. This is made by pouring a pailful or so of boiling water over half a pound or more of tobacco in a close vessel. M. Bouche recommends sprinkling the leaves with powdered lime, as next in efficacy to tobacco; but I have found it ineffectual. It may not be amiss here to mention some of the methods which have been proposed, and which have either been unsuccessful in destroying the plant-lice, or have proved injurious to the plants. Potatoe-water, from its known poisonous quality, was supposed to be destructive to plant-lice, but experience has not proved this. Smearing the joints of plants where eggs may be supposed to have been laid, is equally futile,—for as M. Bouche remarks, it is soon washed off by rain, or cracks and falls off through dryness.

"Early in the spring, Dr. Darwin directed a nectarine tree to be moistened with tar water, and parts of the wall to be smeared with tar; another to be moistened with lime and potash dissolved in water; a third with soap suds, and lime added to them; and many, both nectarines and peach trees, with soap suds alone. This was done by means of a brush, before any flowers appeared, and was repeated thrice on different days; but to his great astonishment, when the leaves appeared, they became affected with the plant-lice as on former years. He also afterwards dipped many nutt-leaves crowded with the plant-lice, in a strong infusion of tobacco, for a few minutes, as the leaves hung on the trees, without, as he believed, destroying the insects, though some of them appeared for a time to be rendered torpid.

"Dr. Darwin also sprinkled some oil of turpentine, by means of a brush, on some branches of a nectarine tree, which was covered with the plant-louse; but it killed both the insect and the branches. A solution of arsenic much diluted, did the same.———M. de Thosse having observed that his trees were attacked by multitudes of small insects of different colors, which injured their young branches, he destroyed them all in the following manner: He put into a bowl a few handfuls of earth, on which he poured a small quantity [?] of oil of turpentine; he then beat the whole together with a spatula, pouring on it water till it became of the consistence of soup; with this mixture he moistened the ends of the branches, and both the insects and their eggs were destroyed, and other insects kept aloof by the scent of the turpentine.

"A more recent writer, Mr. L. Knapp, has the following observations, applicable to the species which infest the branches and bark of trees, such as the American blight: 'Upon young plants, and in places where a brush can be applied, any substance that can be used in a liquid state, to harden into a coat, insoluble by rain, will assuredly confine the ravages of the creatures, and smother them. Hard rubbing with a dry brush crushes many; but there are crevices into which bristles cannot enter; thus some escape, and propagation continues. I have very successfully removed the American blight from young trees, and from recently attacked places in those more advanced, by an easy application. Melt about three ounces of rosin in an open pipkin; take it from the fire, and pour into it about three ounces of fresh oil; the ingredients perfectly unite, and when cold acquire the consistence of honey. A slight degree of heat will liquefy it; and in this state paint over every node or imperfect part in a tree, using a common painter's brush. The substance soon hardens and forms a varnish, which prevents any escape, and stifles the individuals. A second application I think will be found to effect a perfect cure.'

———"Major adds that sulphur is of no use, while turpentine and oil injure the buds, the leaves, and the young shoots, though they do not effect the old bark. Soap-suds will not by itself kill the insects, unless very strong; but along with tobacco-water, it appears to be the best thing hitherto discovered.—One pound of soap in four gallons of water, mixed with three or four gallons of tobacco-water, and thrown blood-warm from a garden engine, in the form of fine rain, is a good mode of application to all the plant-lice which frequent leaves and young shoots."

He then gives a systematic description of British plant-lice, comprising sixty-eight species. He says "the Oat plant-louse (*Aphis avenæ*) is found on the ears of wheat, barley, oats, and *particularly of rye, causing by its punctures of the young grain, the excrescence termed* Ergot *or spur,* so much mistaken by many writers."

We shall only mention another species, the "Currant-root plant-louse (*Aphis radicis ribis*)," and we notice this because it is probable that it infests the currant roots in this quarter: "Found below the surface of the soil on the roots of currant trees, attacking them, and causing the leaves to drop from the middle of July till the end of September, when many winged ones appear and migrate. It may be destroyed by pouring abundance of soap-suds around the roots, and treading in the earth firmly to the plants."

Modes of Preparing Food for Cattle, &c.

1. Mix coarse straw and similar coarse materials with about one third the quantity of hay, sprinkle over it a small quantity of brine, pass the whole through a cutting machine, and feed it out in large deep troughs, and none of it will be wasted by being trodden under foot. A very large quantity may be prepared at a time if found convenient to do so.

2. Fill a large tight box with any desired quantity of chopped cornstalks, with about one twenty-fifth part their bulk of coarsely ground meal mixed equally through them. Let steam pass into them from a boiler for an hour, and they will then form a most nutricious and palatabble food for cattle,especially for milch cows. Or the meal may be boiled with a large quantity of water, and then poured while boiling hot upon the chopped food without steaming. In both cases a small quantity of salt should be sprinkled over them.

Every means of saving hay is of vital importance to the farmer, for it is far more pleasant to be able to sell hay at ten or fifteen dollars a ton, than to purchase it at that price to keep alive a herd of starving cattle.

Fattening Hogs.

ONE PECK BETTER THAN TWO.

As farmers are fattening their hogs at the present time, and as economy in this business is of the utmost importance, it may not come amiss to remind them of an experiment tried and related by an exact agriculturist, Rev. Henry Colman, formerly of Salem, now on the Connecticut river in Massachusetts.

He found, while cooking meal for his swine, that if he took one peck of meal and put it in a kettle containing five pails full of water, it produced nearly as great an effect in fattening hogs, as one half bushel boiled in the same quantity of water—probably because it became more thoroughly cooked. The editor of the Genesse Farmer, after making mention of this, quotes the following from the British Farmer's Magazine. "I always feed my pigs on sour food, which I have invariably found to fatten them faster, and make the flesh firmer and whiter than when given in any other state. The potatoes are steamed, and while quite hot, are beaten to a pulp, and mixed with it in the proportion of 28 lbs. of bran to 240 lbs. (or nearly four bushels.) This mixture is put into a vat to remain ten or twelve days, until quite sour. It is then fit for feeding. If the quantity of meal is greater than the potatoes will moisten, water should be added to make a thick paste. But it must never be given until fermented."

A greater number are now trying the apple sauce plan, and we doubt not with good success. We hope they will also be exact in their experiment on this subject. It is one which is of great importance. We doubt if the most economical method of making our pork is followed, if indeed it be found out, and we know that there is not enough raised in the state, or rather fattened in it, to supply the inhabitants. Much of the Ohio pork finds its way into our seaports. This while it is not so good, is an injury to our farmers, and they must study out a method of making pork in the cheapest manner, in order to compete with the *oily grunters* of the forests, which are fattened on nuts and rattlesnakes.

Silk.—Where, fifty years ago, eight bales of cotton were produced, one million two hundred thousand are now produced. It is predicted that in a few years as great an amount of silk will be raised. Why not?

From Chaptal's Chemistry Applied to Agriculture.

Of the Effects of the Nourishment

OF PLANTS UPON THE SOIL.

It appears to be clearly proved, that plants imbibe from water and the atmosphere, only carbon, oxygen, and hydrogen; but analysis shows us that, independently of these principles and the products arising from their combinations, plants contain azote and some earthy and saline substances, which cannot be produced by either of the three elements mentioned above. It remains then for us to inquire, in what manner these substances have been introduced into plants.

Azote, which is found in the Albumen, the gelatine, and the green coloring matter, is not sensibly drawn from the atmosphere, though it constitutes 4-5ths of it, but passes in with oxygen in the water imbibed by plants, and, like that, is separated in their organs.

The earths which are insoluble in water, but which are mixed with, or suspended in that fluid, are not absorbed in large quantities by the pores of plants, but may be conveyed into them by the aid of some chemical agents, as the acids, the alkalies, &c. Besides, if we observe attentively, we shall find that these substances do not abound in plants; and we can easily conceive, that the little they do contain, might, in a state of extreme division, be introduced by water.

There are some plants that fasten themselves and grow upon the most barren rocks, deriving from the surrounding air, and from rains, all the nourishment required by them; of this number are the mosses, the lichens, and the fleshy plants. Their growth is slow, their transpiration almost nothing, and their color remains nearly the same all the year round: so that they constantly absorb water and carbonic acid, and assimilate their constituent principles.

The soil is always exhausted, in a greater or less degree, by the plants it produces; and much more by those that are annual, than by those that are perennial. Air and water alone do not afford a sufficient degree of nourishment to plants, for when they have been made to grow in well washed sand, watered with distilled water, though they have flowered, their fruits did not arrive at maturity. Experiments to this effect have been made by Messrs. Giobert, Hassenfratz, de Saussure, &c.

Those annual plants which transpire most, generally exhaust the soil in the greatest degree. Peas, beans, and buckwheat, though they have succulent stalks, exhaust it least, because they transpire but little.

When annual plants are cut at the time of flowering, they do not exhaust the soil, as their succulent roots furnish materials for replacing the loss occasioned by their growth; but after having produced their fruits, the soil derives but little advantage from the dry fibers which are the only remains of their stalks and roots.

During fructification, plants absorb but little nourishment from the soil; the supply necessary to the formation of the seed is furnished by those juices which already exist in the roots and stalks, and this occasions them to become dry and exhausted, so that, when the fruit is perfected, the roots and stalks consist only of woody fiber. It is necessary that this fact should be known, in order that too late mowing of meadows, whether natural or artificial, may be avoided. The most favorable period for cutting grass is that of its flowering; if the operation be postponed till the seed is formed, two great disadvantages will arise; the first is, that fodder obtained will have parted with the greater portion of its nutritive qualities; and the second, that the plants, having fulfilled all the laws of their nature, by providing for their reproduction, cannot flourish again with vigor during the same year.(a)

(a) This holds good only in part in regard to timothy (*Phleum pratense.*) According to Sinclair, this grass contains more than double the nutriment when in seed than when in bloom. At the same time the remark of Chaptal is correct, that the root is much more exhausted by maturing its seed—the aftergrowth is comparatively trivial, and the subsequent crops are diminished. By cutting rye in flower, or before, which is either annual or biennial, it may be almost rendered perennial, as we have witnessed, in sowing it with lucern. We have observed the same fact in regard to many garden productions—whose existence and vigor are prolonged by preventing the formation of the seed.—*Cultivator.*

In support of this doctrine, I will mention one well known fact, which is that meadows mown before fructification afford the most abundant harvests, and the greatest number of them, as they may be mown several times in a year. The perennial ptants which serve as fodder, may by this means be preserved for several years in a state of reproduction, but if mown after the formation of seed, the plants are weakened and the reproduction is lessened. All farmers know, that when they subject to tillage a piece of artificial grass land, which has for several years been constantly mown at the time of flowering, it will yield several harvests without any dressing; but if the grass has been left to go to seed, it will be necessary to supply the earth with manure before it will yield a good return. As those plants that are cut at the time of flowering do not exhaust the soil so much as those that remain for seed, the belief has arisen among farmers, that before the period of fructification, they are nourished by the constituent principles of the surrounding air and water; but that during the time of the formation of the seed, their support is almost wholly derived from the earth. But this opinion will not hold in regard to all plants; lettuce, turneps, tobacco, woad, endive, cabbages, and onions, exhaust the soil greatly, though they are gathered before producing seed. Potatoes, though they produce but few seeds, impoverish land more than almost any other vegetable. Plants raised in a nursery, and afterwards transplanted, exhaust the soil in which they spring more than the one in which they complete their growth.

Thus we see, that during the whole time of their vegetation, plants derive their nourishment from the air and from the substances contained in the earth; but if they are mown at the time of flowering, they leave in the soil their roots and portions of their stalks, which restore to the earth nearly as much as they received from it; while, if they remain uncut till they have completed their course, they return little or nothing to the soil to compensate it for the nourishment they have received from it.

It is well known to farmers, that ploughing in a green crop of any kind whatever, prepares the soil for producing well without any other manure; since, by this process, all that the soil has yielded is returned to it, with some additions resulting from the decomposed principles of air and water, which are contained in the plants.

In order fully to understand this doctrine, which appears to me of great importance to agriculture, it is necessary to consider the successive changes which take place in annual plants during their growth; first, they produce green leaves, which, by coming in contact with the air, receive from it the principles of which I have spoken; subsequently the stalks increase in size and number, and are covered with numerous leaves, which absorb from the atmosphere a degree of nourishment suited to the increasing wants of the plants; the strength, fulness, and depth of hue of the leaves and the stalks, particularly of the latter, increase in proportion to the richness of the soil.

This state continues till after the period of flowering, when a change, worthy of note, takes place; the roots dry up, the stalks wither and change their color; and when fructification is at length completed, both roots and stalks have become mere skeletons, which answer but little purpose either for nourishing animals or manuring earth. During this period of vegetation, what becomes of the juices that were so abundant in the roots and stalks? They have been consumed by the formation of the seeds. It is undoubtedly the case that plants still continue, during fructification, to absorb some portion of their nourishment from the air and soil; and this assists in the formation of their seeds; but by far the greatest share of the formation of these is owing to the deposits contained in the organs of the plants.(b)

The same holds true of perennial plants; and it may be observed, that when a tree produces fruit too abundantly it becomes exhausted and dried, and bears only that which is small and misshapen. The difference between annual and perennial plants is, that the former die as soon as the process of fructification is completeted; while the latter preserve their leaves green and their roots fresh, for the purpose of absorbing new portions of nourishment, to be deposited in their vessels for food when the returning warmth of spring shall cause them to require it.

M. Matthieu de Dombasle, one of our most enlightened agriculturists, has confirmed by experiments the doctrine I have here advanced. On the 26th of June, 1820, at the time of flowering, he selected, within a small space, forty wheat plants of equal size and strength, each having three stalks bearing heads; he pulled twenty of the plants with all their roots, and left the rest to complete their fructification. Having carefully freed from earth the roots of those he had taken up, he cut the stalks two inches above the base, and dried separately the roots, and the stalks surmounted by their heads.

The roots and the portion of the stalks remaining with them weighed, grains.....647
The stalks, heads, and leaves, " 1946.5

Total,.....2603.5

On the 28th of August, the time of harvest, he plucked up the twenty plants which had been left for seed, separating the roots and cutting the stalks as of the first; of these the weight was as follows:

	Grains.
Roots,.....	419.53
Straw, husks, and beards.....	1318.75
Grain,.....	1025.69
Total,.....	2763.97
During these too months, the roots and the portions of stalks adhering to them had lost,.....	237.52
The stalks, head, and leaves had lost....	624.67
Total loss,.....	862.19

But as the seed weighed 1025.69 grains, the whole had increased in weight 160.47 grains, Troy. From this experiment we may conclude, that the juices contained in the plants, at the time of flowering, contribute to the formation of the grain in the proportion of $\frac{862.19}{1025.97}$, and that the excess of the weight of the grain which is $\frac{160.47}{1025.97}$ arises from the nourishment which the plants absorb from the air or soil, during the two months of fructification.

If the wheat is mown when in blossom, it leaves in the earth, to be converted into manure, a quarter part of the weight of the plant; but when it is reaped after having come to maturity, there remains only one seventh; and this last residue is worthless as manure in comparison with the first; this contains almost nothing but carbon, while that is rich in juices and in decomposable matter. Thus we see that those plants which form seeds exhaust the soil most, because for all they have received they return nothing but their dry roots and stalks; while those that are cut when green give back with their roots and stalks what they have drawn from the soil, and a part of that which they have drawn from the atmosphere.

The nutritive principles contained in the soil pass into plants only in a state of solution, or of extreme division in water. Healthy plants absorb from preference those salts (c) that are most

(b) Thus the succulent stalks of the maize contain, when the grain has attained its growth, the deposits of food necessary to ripen and mature the crop, and it supplies this nutriment to the grain, although separated from the root for a considerable time after the grain is put in stooks. And hence wheat and rye may be cut before the grain is hard with benefit rather than prejudice.—*Cult.*

(c) Salt is an acid combined with an alkali, an earth, or a metalic oxide. the latter of which are termed the base. They have double names, which

congenial to them; but if waters be charged with salts unsuited to their natures, they absorb the fluid and reject the salts till the water becomes thickened by them.

There are some salts which enter naturally into the composition of certain plants; the pellitory and nettle, for instance, which grow upon the borders of the sea, contain muriate or sulphate of soda; these vegetables, transported into other soils, afford no vestige of these salts, and their growth is vigorous. M. le Marquis de Bullion has proved that the turnsol, raised in earth containing no nitre, does not, upon analysis, afford a vestige of any; but that plants of the same kind, raised in the same soil, but watered with a solution of nitrate of potash, are charged with that salt.

Generally speaking, a superabundance of salts, especially if they be of kinds very soluble in water, injures vegetation; this is particularly the case when the [illegible] enter naturally into the plant, [illegible] number of their constituent principles. Salts of foreign natures cannot be useful, except as they may serve, in very small quantities, to excite and stimulate the organs of plants. The great value of sulphate of lime as a manure, is owing to its insolubility, which allows water to contain but a very small portion of it at once; so that it passes into plants very gradually, and thus its effects are prolonged for several years; till, as I have before observed, the soil is exhausted of it.

The quantity and quality of the salts contained in plants may be ascertained by an analysis of the ashes arising from burning them in a dry state. It may not be useless to mention here some facts which may throw light on this subject.

Kirwan and Ruckers have proved, that an equal weight of herbaceous plants furnishes more ashes than of ligneous plants. M. Pertuis has found, that the trunks of trees afford less ashes than the branches, and these last less than the leaves. Evergreens yield less ashes than trees and shrubs that shed their leaves in autumn. On the other hand, Hales and Bonnet have observed, that the perspiration of herbaceous is greater than that of ligneous plants, and that that of evergreens is less than that of plants which shed their foliage. These circumstances may explain why some plants afford more ashes than others. The water which is evaporated by transpiration deposits in the cells of the plant the salts which it had held in solution, and is replaced by a new quantity, which is in its turn thrown out, leaving behind it an additional portion of salts; so that those plants, and those portions of the same plant, which transpire most, must necessarily contain the greatest quantity of salts.

The salts and earths contained in plants are of the same nature as those existing in the soil in which they grow, but not, according to analysis, in the same proportions; because the plant absorbs more or less of them according to its own nature and their solubility. It cannot, however, be strictly said, that all the salts contained in plants existed previously in the soil, as some neutral salts are evidently formed within their organs; such are those of which the acid is known to us, and particularly those that contain in their composition a vegetable principle: of this sort are the acetates, the malates, and the citrates. The salts do not exist after the burning of the plant, because their acid is decomposed by the action of fire, and there remains only the base, which is usually potash or lime; but an analysis of the plant "by *the wet way*" gives proof of their existence.

It is even possible in some cases to follow the formation of the acid, by observing the progress of vegetation, and the changes produced in its products. Of this I will mention one example. Beets gathered late in autumn, in the north of France, do not yield the same principles as those gathered at the same period in the south of France; the first contain sugar, the second saltpeter. According to the experiments carefully made by M. Darracq in the department of Landes, the best roots of the south yield as much sugar in the month of August and the earlier part of September, as those of the north; this sugar then is replaced by saltpeter, of which the acid is formed during the progress of vegetation. It has been observed, that beets containing sugar frequently underwent a change during the winter by which the sugar entirely disappeared, and was replaced by saltpeter; in this case we can almost follow with the eye the process of decomposition. The juice of beets in which the change has commenced, when thrown into the boilers, becomes covered with a thick, white foam, which gives out a reddish vapor of nitrous gas: in this state the labor of extracting sugar becomes very difficult; the sugar crystalizes badly, and the proportion of molasses is very great. It may be seen clearly, that in this state oxygen is already united in the beets with azote, and that only an additional portion, which would be gained during the progress of change in the roots, is wanting for the formation of nitric acid; this combined with the potash, which is contained in these roots in the proportion of 1-100 of its weight, would produce saltpeter.

If we observe a plant during the various stages of its vegetation, we shall perceive at these different periods very remarkable difference in the odor, taste, consistency, &c.; from this circumstance we must suppose that it forms new products, new combinations, and consequently new salts.

The alkaline salts are the most abundant in green herbaceous plants. M. de Saussure has observed, that the ashes of young plants that grew upon a poor soil, contained at least ¾ of their weight of alkaline salts, and that those of leaves of trees which grew from their buds contained at least ½.

The proportion of alkaline salts diminishes in proportion as the plants advance in age; this remark applies equally to annual plants and to the leaves of those trees that shed their foliage in autumn. The ashes of seeds contain a greater proportion of alkaline salts, than those of the plants that produced them.

These facts are very important to those who are engaged in the manufacture of salts furnished by the combustion of vegetable substances; since they show clearly that it cannot be equally advantageous to them to consume all sorts of plants, nor at all periods of their growth.

Next to the alkaline salts, the earthy phosphates of lime and magnesia are the most abundant in plants, and, like the first, these diminish in quantity in proportion to the age of the plant. Plants also contain, but in very small proportions, silica, and some metalic oxides, especially those of iron.

indicate both the acid and its base: Thus *muriate of soda*, (common table salt,) is formed of *soda*, an alkali, its base, and *muriatic acid*; *carbonate of lime*, common chalk or limestone, of *carbonic acid* and lime—*sulphate* of lime, or gypsum, of *sulphuric* acid and lime, &c.—*Cult.*

From the Tennessee Farmer.

The Good Farmer.

To constitute an accomplished Farmer, one who can pursue the honorable occupation to which he belongs, with honor, with profit, and with pleasure to himself, and with advantage to his country, the following traits of character are almost indispensable:

1st. He must be a man of integrity—one who would scorn to defraud his land, his beasts, his servants, or his neighbors—because, by doing either, he always injures himself, and often injures his country.

2d. He must be a man of thought and reflection—for without these he can never know how to direct his industry, or understand in what economy consists—and without well directed industry, and a wise and prudent economy, no farmer can prosper.

3. He must understand how to create and how to preserve the fertility of his land—because, without increasing and preserving the fertility of his soil, his labor will generally prove to be, both unprofitable to himself, and injurious to his country.

4th. He must know how to cultivate his land in that manner, which will enable him to obtain the largest product it is capable of yielding, with the least expense.

5th. He must understand the best modes of rearing stock, and of improving their breed.

6th. He must have industry enough to reduce his knowledge to practice—otherwise it can be of no value either to himself or to his country.

7th. He must well understand the distinction between true and false economy, and rigidly practice the former, and avoid the latter—otherwise his labor will only be thrown away.

8th. He must be too wise to be vain and self-conceited—otherwise he will be above improving in his profession—and besides, vanity and self-conceit are disgusting and odious to others, and the most certain and infallible proofs of a weak intellect, and of a corrupt heart.

9th. He must possess a benevolent temper and disposition—because, without this, he can never so use the product of his labors, as either to promote his own or the happiness of others.

10th. He must be patriotic. This will induce him to seek to promote the public good, in which his own interest is involved.

14th. He must have too much honorable independence of soul, to be capable of degrading himself into a slavish partizan—otherwise he will infallibly become the dupe of artful and intriguing demagogues, or of corrupt political aspirats, who will be sure to use him for the accomplishment of their own base purposes, to the great injury of himself, and of his conntry.

12th. And to crown all, he should be a man of real genuine piety—a piety that will prompt him in whatever he may be engaged, whether in the labors of the field, in the duties pertaining to social intercourse, or in those of devotion, to keep his eye steadily fixed on the promotion of the glory of God, by the improvement of his whole nature, intellectual, moral, and physical, and the welfare of all around him, whose happiness can be affected by his conduct.

Compared with such a farmer, to the eye of reason and of common sense, how contemptibly despicable do the herd of the vulgar great appear? To a mass of dishonesty, fraud, and deceit, which would well nigh disgrace a Penitentiary, a disgusting, bloated vanity, a mean, base, and contracted selfishness, at war with every noble and generous emotion of the human soul—these latter characters, not unfrequently add the unsurpassable stupidity of believing, that their wealth, or their station, entitles them to a superiority over the honest, the intelligent, the virtuous, and the patriotic farmer, contrasted with whom, in the estimation of every virtuous and intelligent being, they occupy a rank no less inferior in dignity and worth, than that of the most worthless, profligate, swindling culprit, when compared with the most honorable and exalted of those distinguished benefactors of mankind, whose virtues and whose talents have shed a luster on the dignity of human nature.

Browsing Sheep.

We are indebted to Wm. Sibley, Esq. of Freedom, for the following communication from a friend in New Hampshire, on the *method and benefit of browsing sheep*. It contains many valuable hints to wool growers, worthy of their attention and practice.—*Belfast Advocate.*

Hopkinton, N. H. Oct. 25.

My Dear Sir—On the return of your uncle I was told you wished to know my method of browsing sheep. * * * * * *

As soon as the ground is covered with snow, I browse my sheep daily. I go to the woods and make one or more temporary cribs by placing two poles parallel 18 or 24 inches apart upon two handfuls of brush or billets of wood. Between the poles I place or set my boughs of hemlock or hard pine—[probably spruce, fir, or cedar will do as well]—thrusting the butt ends into the snow and having them lean [all] the same way. I extend my cribs till they will accommodate the number of sheep I wish to feed. I then tread down the snow about the cribs so that sheep can easily pass by those that have reached the

browse and are feeding. I then turn my flock to the cribs, and my work is done. In the latter part of the winter, when the snow is sufficiently hard to bear up the sheep, I thrust the boughs, when cut off, into the stiff snow, in rows without poles, but so close together as to prevent the sheep passing through them.

Three winters ago, when I began to browse my sheep, I cut my browse and threw it about at random, but soon found my sheep too nice to feed in that slovenly manner. They would run over it, and leave it. I took the hint of arranging the browse in the way I have mentioned from nature, for I observed where boughs pendant from the trees were sufficiently low to be reached by the sheep, they would go directly to them and feed more freely than in any other way. Sheep are not pleased with having their food touched even by the hand of man.

The advantage of browsing sheep is no longer doubted here. It gives them exercise, fresh air and green feed during the whole winter. I drive my sheep in flocks of from 50 to 100 nearly a mile every day, unless the weather is very tempestuous, and they heed the cold about as much as the deer or moose that range the White Mountains.

A farmer in this town wintered about 75 sheep wholly on browse and a gill of corn a day to each. His flock were not at the barn during the winter, and they came out of the woods in the spring in fine order. He was fortunate with his lambs that season, and the following fall sold his wethers to the butcher for $4 a head. I believe he had a slight covering to protect his sheep from storms. I give no grain of any kind to my sheep, except to my lambs the first winter, or to a few old ones that may be feeble; to these I give at the rate of a quart daily to twenty-five. To my breeding ewes I give half a gill a day for three or four weeks before they yean. I keep my stalls dry and airy, and daily brush every straw they leave from their cribs. For the last three winters I have wintered 247, 367, and 275, and have lost but two during the three winters. My breeding ewes last winter numbered 127—of which seven proved barren; I had two lambs killed by a fox—two died by taking cold after castration—one from being trod upon when very young, and one came too feeble to live, and died—loss in all, six. I have since disposed of five, and my lambs now number 109; and a more plump, healthy, and beautiful flock I think cannot be found in New England.

I have lately sold 68 of my old sheep, and my whole flock now numbers 211. I have brought up my flock mostly from Merino ewes, and they are now from full blood Saxony to those made nearly so by breeding from the finest Saxony bucks for nine years. My fleeces averaged last June when sheared 2 lbs. 6 ozs., and sold at 75 cents. My store sheep sell from 3 to 10 dollars a head. Yours to serve,

STEPHEN SIBLEY.

From the Northampton Courier.

Good Stock, &c.

Although Northampton is not eminently distinguished for business enterprise or great manufacturing speculations, yet there is a pervading spirit here, identified with agricultural matters, which performs much for the common weal. We have oftentimes been gratified with the superior breeds of domestic animals found in this town and its immediate vicinity, and the honorable exertions making among some of our intelligent and energetic farmers for their further improvement. It cannot be expected that every individual will possess the necessary animals for crossing breeds and greatly improving his stock. It is sufficient if his more thrifty neighbor, by great expenditures of money, furnishes him the materials for accomplishing it at a trivial expense, and in this way enables him to advance his own and the public interest.

The sheep in Northampton are of a superior kind. There are some flocks here which are inferior in blood and wool to none in this country. As evidence of it, for two or three successive years, different crops raised here have been sold at 85 cents and $1 00 per pound, prices seldom given for wool, except it be of a rare and superior quality. From the earlier introduction of the Saxony breed in the United States, when they were sold at 6 and $800 per head, the flocks in this town, by the introduction of the pure Saxony stock, have been constantly advancing. The influence of such a superior breed of sheep and the stimulus to improvement exerted by their enterprising owners, has not been restricted to Northampton, but it is seen and extensively felt in all the neighboring towns. These flocks have not only been extended four-fold, but the quality of the wool has been always advancing and still promises to "go ahead." The example of one or two intelligent and energetic wool-growers here, who have spared neither labor nor expense in procuring the best foreign stock for propagation, has had the effect to stimulate others, and give a new impulse to wool-growing, in the western part of the state, which it will be no easy matter hereafter to retard or destroy.

The neat cattle in Northampton are generally of a superior kind, and the commendable spirit for improving stock and raising the breed of animals, notwithstanding the inveterate hostility of many farmers to all innovations, still exists and is rapidly extending here. The same influence radiates over the county, and it has since given an honorable impulse to the same kind of improvement in the adjacent towns. Some individuals in Northampton have made great expenditures in procuring superior breeding animals and improving this kind of domestic stock, and their exertions have infused a new spirit around us and been thus far eminently successful. In respect to intelligent and scientific farming, Northampton, relying as it does almost exclusively upon this branch of industry for support, stands on an enviable elevation. The cause of agriculture owes much to the discriminating observation and intelligent experiments of many of our farmers, and we may say, without fear of contradiction, that no one town in Massachusetts has done more than our own, in this way, to aid its advancement. He who brings to the aid of practical labor, liberal and generous attainments, has the advantage of him who can simply theorize without the knowledge which admits of demonstration. The Silk business, also a department of agriculture, has had an impulse given it here, by a few energetic individuals, which already has extended to remote parts of the Union. It first began in Northampton about two years since, on an enlarged and liberal scale, and we may presume that no town in the United States can exhibit more method and intelligence in its plans and evidence of its ultimate success. The energy with which it has been carried forward, and the close observation and knowledge which has been brought to its aid, we trust, is enough to ensure it a triumph in Northampton.

Silk.

We were shown yesterday, by Mr. Harvey Johnson, of Holland, in this county, a pair of gloves, manufactured from American silk, in 1800, which are equal in quality to the imported, and the fabric is of fine texture and thickness. Mr. Johnson, with several others, are about embarking in rearing the mulberry, and the culture of silk, in Holland, for which purpose they have made preparations by planting nurseries, and taking measures for the early introduction of the silk worm at the opening of the next season. Small parcels of silk have been manufactured in our vicinity during the season, and much might be realized by the production of the raw material, for it is not confined to any particular locality, but will equally reward the labor of those engaged in any section of the country. The most profitable mode recommended by those who have been long engaged in the business, is to sell the cocoons, for which a ready cash market is always offered, at the silk manufactories of the east, and we doubt not but that should the business be more universally introduced, such establishments would meet with profitable encouragement in this section.—*Buffalo Com. Adv.*

From Fessenden's Silk Manual.

Facts and Observations Relative

TO THE CULTURE OF SILK.

The following facts are from a slip cut from a New York newspaper, but the date nor the title not being preserved, we cannot give credit to the source from which we have derived it.

About five years ago, William Gillespie, Esq. of the town of Montgomery, Orange county, (N. Y.,) sowed seed for a nursery of the white mulberry, (morus alba,) for the purpose of the culture of the Silk Worm. The ground occupied by the nursery is about four square rods. This small lot yielded last summer 175 skeins of sewing silk, rivaling in softness, strength and beauty, the best imported specimens of the same article. These skeins, with a sufficient quantity of tow for a pair of stockings, would command in market $10. The whole labor expended in the culture, Mr. Gillespie estimates at $2—making the product of four square rods $8. One acre cultivated this way would yield $320, besides the expense of the labor.

Farmers might clothe their wives and daughters with silk of a good quality at less expense than it now requires to clothe them in fine cotton. It is estimated that $5,000 worth of sewing silk is annually sold in Orange county alone, and the whole sale of the article in the state of New York may probably be estimated at 150,000. All this would be saved in our country by the extension of this very profitable branch of husbandry so as to supply the home consumption. Much of the labor too can be performed by small children who would otherwise be idle, and thus early habits of industry would be created.

The whole process is simple, and a knowledge of it easily acquired. After the middle of May the egg of the silk worm is brought from the bureau, and exposed to the warmth of the air, but not to the rays of the sun. Early in June the term of incubation expires, and the small silk worms make their appearance. They are now to be fed with mulberry leaves, with which they are supplied twice a day, the leaves to be scattered in the enclosure where they are kept.—In about six weeks they attain their full growth, when they are of a beautiful golden color. A small quantity of leaves supplies them for the five first weeks; the sixth week they require an abundant supply. Mr. Gillespie informs us, that during this week when a stranger visits their apartment, they leave off eating, raise their horn and give plain indications that they know him to be a stranger.

After feeding about six weeks they quit eating and are prepared to commence spinning. Oak or walnut leaves, dried in the sun so as to be curled are now thrown into their enclosure; they lodge in the folds of the leaf, and begin to spin from their own bowels—first the tow by which they attach their web to the leaf, then the thread, which they form into a perfect web, so as to shut themselves closely within.

The larvæ or worms enclosed in the balls, that are intended for propagation, cut their way out of the silken cell and escape from their own prison, in the form of a butterfly, with beautiful variegated wings; white paper is placed under them, on which the egg is deposited; one butterfly will deposit two thousand eggs. These papers, with the eggs are laid away in a chest or desk until the following spring, when the process above described is again repeated.

After this interesting insect has furnished the fine material, the tow is picked off the balls, which are thrown into hot water and a stick is passed among them, to which the ends of the threads attach themselves. For sewing silk, forty of them are laid together and reeled. The thread thus composed of forty fibres, is twisted hard on a large spinning wheel, then doubled and twisted again, and wrought into skeins.—The whole process of manufacture is completed by scouring in the same manner as woolen yarn to detach the glutinous substance, which the worm employs in the fabrication of its thread.

From the Albany Evening Journal.

Culture of Silk.

Mr. Editor—Our enterprising countrymen in various parts of the northern states, are engaging with great animation and zeal in the culture of silk, and in establishing manufactories of that article; even our Trojan neighbors have given notice of an intention to apply to the next legislature for an act incorporating a company with a capital of $200,000, for the culture and manufacture of silk.

Now sir, I ask whether the citizens of Albany intend to remain dormant and indifferent to this most profitable enterprise? or whether they will bestir themselves and awake to their true interests? It is known generally in this city that Mr. Blydenburg has for the last six months been publishing a periodical among us, displaying and proving the immense profits which will inevitably accrue from the culture and manufacture of silk. I doubt much whether a tithe of our citizens are aware of this fact; and I doubt still more, that there are ten subscribers to this valuable work among our citizens. It has been proved beyond controversy, that in whatever country the mulberry grows well and flourishes, provided that country has not a humid atmosphere, there the silk worm may be most profitably reared; consequently it is established by a thousand proofs that in every part of our vast country, silk can be produced equal in brilliancy and texture, to the silks of France or Italy. The manufacture of silk has within the last year been established in several of the eastern states, and is increasing with an astonishing rapidity. I will give an extract from the "Silk Culturist," for this month, published in Hartford, Ct., which will surprise your readers.

"The Rhode Island Silk Company, which was late the 'Valentine Silk Company,' was incorporated at the recent session of the legislature, with a capital of $100,000. Their factory is situated upon Eddy street; the machinery with which it is nearly filled, is propelled by a six horse power engine; the steam is generated by the siftings of anthracite coal, at an expense of 33 cents per day; this, till recently, useless and profuse portion of the coal, is ignited and rendered about as valuable as any other, by the aid of Reynold's patent blowing apparatus. While preparing their machinery and instructing their operatives in the art, they have manufactnred from 16 to 1800 yards of rich, heavy goods. The number of hands has recently been very much increased, and with the additional power looms about to be put in, the company contemplate making from 300 to 400 yards per week. Of course, as there is no domestic supply, they are compelled to manufacture foreign silk. Another year, however, they will probably derive a considerable amount of the raw material from their own plantation, which is on the western border of the city, and consists of thirty-six acres of land, particularly well adapted to the growth of the mulberry tree. Upon it there is a large two story house, a barn and granary, a cocoonery 150 feet long, built last spring, and 16,000 mulberry trees of vigorous growth, of four and five years old. From these trees it is estimated that at least 2000 lbs. of wound silk may be produced per year, for the next five years, or two ounces to a tree. The company are about putting out 40,000 more trees of three years' growth, in hedges, after the Italian mode. These, it is estimated, will yield an average rate of one ounce of wound silk to a tree per year, for the next five years, or 2500 pounds per year. The total produce of the farm (36 acres) in silk, would be worth, at $4 per pound, $18,000. One half of this is allowed for attendance on the cocoonery, and winding the silk into a marketable state, leaving a nett profit of $9,000, (on 36 acres of land.) In addition to this ought to be reckoned the value of the crops of corn and potatoes which the best condition of the trees will require should be planted among them," &c. &c.

Here we have a fair practical account of the rich and splendid reward attending the culture of silk. Had the account gone on and shown the quantity of silk which may be expected from this farm of 36 acres, for the next five, ten and twenty years, it would, in its truth, have staggered credibility.

The account is purposely, I think, silent as to the profits of the manufacture of silk. The profits must be great, when we consider that the ingenious Mr. Gay has discovered that silk, which is stronger in its fiber than cotton, may be woven in the power loom, a discovery not yet made in Europe.

Now, in view of all these facts, I have to propose that a meeting of our patriotic citizens be immediately called, to consider of the propriety of forming a company and obtaining an incorporation for the purpose of cultivating and manufacturing silk in this city, or its immediate neighborhood. No time ought to be lost, when the object is so important to the prosperity and wealth of the city. A. S.

From the Farmer's Magazine for September, 1835

Seed Wheat.

Three years ago Colonel *Le Couteur*, one of the deputies from the island of Jersey, became acquainted with professor *La Gasca*, one of the most celebrated botanists in Europe who had been Curator of the Royal Gardens at Madrid, and obliged to leave Spain, where he is again restored to his friends and to his former situation. The Professor was then growing about 80 sorts of wheat in the garden of Mr. Saunders, nursery-man in Jersey. Their variety, classifications, and beauty, struck Mr. *Le Couteur*, who sought to acquire all the information he could from Professor *La Gasca*. The latter told him that for the last twenty-five years he had been employed in studying the properties and character of wheat and had collected in the Royal Gardens upwards of nine hundred varieties and sub-varieties. He came to Col. *Le Couteur's* farm and picked out more than twenty sorts out of three fields, then (n August) growing; and gave daily all the instruction and information wanted by Mr. *Le Couteur*, who resolved on profiting by such an opportunity, and began seriously to cultivate the important plant of wheat, so as to procure the several sorts distinct from each other, and keep notes of the experiments made on the culture, produce, weight of the grain, and qualities of the corn, flour, and straw. Colonel Le Couteur has kept a most minute account of his experiments, and taken the greatest care to preserve the best sorts and in their purity. He has in London nineteen varieties of the greatest beauty, and such as the frequenters of Mark-lane say could not be matched in England for purity. They consist in,

No. 1. White Compact. Tremois, or spring wheat.
2. Red Tremois, or do.
3. Long eared do.
4. Dantzic. Winter Wheat. Triticum Hybernum.
5. Small round do.
6. White Seedling. Coturianum Hybernum.
7. Koeleri. Loturianum.
8. Koeleri Red.
9. Koeleri White.
10. Long-eared Liver-colored.
11. Red compact.
12. Golden.
13. Koeleri Compactum Belvuensis.
14. Cesarienses.
15. (No. 6. c.)
16. Red ear (White grain or Sark wheat.)
17. Red compact (No. 9.)
18. Koelri (sub. yellow.)
19. (No. 11.)

The Colonel, after three years experience, has arrived at this conclusion, that the proper cultivation of wheat is yet unknown or unpracticed. That it is of consequence to keep the several sorts to grow apart, because they all ripen at different periods, and that bread made of ripe and unripe corn could neither be so wholesome or nutritious as when made of ripe corn, without the mixture of that which had not well ripened. That each sort requires, or will thrive best in a particular soil and situation adapted to each.—That one ear of a superior variety, sowed grain by grain and suffered to tiller apart, produced four pounds nine ounces of wheat. Whereas, another ear of an inferior sort treated in the same manner, produced only one pound thirteen ounces. Hence it is of importance to select the sorts that are the most farinaceous and productive. That by sowing each sort apart they might be easier saved and harvested, in rotation, some sorts ripening a fortnight before the others. The same quantity of wheat of a farinaceous kind may maintain a family of fifteen persons twelve months; where the same quantity of another kind, though apparently fine corn, will maintain them only nine months. From the superior soil and climate of the Channel Islands, Col. *Le Couteur* thinks that, by growing none but the best kinds and keeping them perfectly true and pure, the Islands might be made to produce the most approved seed corn for Great Britain. The Islands might thus become of the greatest benefit to the United Kingdom, and can never be objects of jealousy, as to the fear of large importation from them, since the extent of all the land susceptible of cultivation in all the Channel Islands together does not much exceed 25,000 acres, and that the greater part must necessarily be occupied by the meadows, orchards, and vegetable gardens of all sorts, absolutely necessary for a population of more than sixty thousand inhabitants.

List of Payments

For the Farmer from Dec. 3, to Dec. 26, 1835.

For vol. 6.
Daniel Longstreth.
Moses Robinson.
Edward Garrigues.
David Crowell.
Alexander Bowen.
P. G. Davison.
E. B. Botsford.
Wm. V. Brown.

For vol. 5.
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Campbell Bushnell.
Alonson Lacey.
Seth Weed.
Israel Curtis.
Bishop N. Parsons.
John Mallock.
Philo Bates.
Richard Babbage.

For vols. 5 & 6.
Jonathan owen.

For vols. 4 & 5.
J. C. Green.
Archer Galloway.
Benj. Roberts.
W. A. Burt.
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Last half vol. 5.
Charles Foote.
John D. Taylor.
Henry Hopper.
Hiel Rowley.
Lazarus Beach.
A. Matteson.
Stephen N. Gerow.

From July, 1835, to July 1836.
Wm. H. Johnson.
T. J. Payne.
Daniel Fosket.
Isaac Goff.

From July 1833, to July 1835.
John Osborn.
Henry Cronise.

From vol. 4.
David Crowel, Jr.

David Wendell, $5,00.
Elias Hull, for vols. 4, 5 and 6.
John Cassil, from Oct. 1, 1834, to Oct. 1, 1836.
Isaac A. Edgcomb, for vol. 5 and half vol. 6.

Robbins' Planting Machine.

WITH this Machine Corn, Beans, Peas, Broom Corn, Mangel Wurtzel, Turneps, Onions, and seeds of almost every description, can be planted with more system and correctness than can be done in the usual manner of planting with the hand and hoe. One man may easily plant five acres a day, placing the seeds any given distance apart, from two or more inches, and in rows two and a half feet apart.

Machines can be had by applying to Reynolds & Bateham, Rochester; C. N. Bement, Treasurer of the State Agricultural Society, Albany; Bushrod Buck, Lanesborough, Berkshire county, Mass.; and Daniel T. Buck, Lowville, Lewis county, agent and proprietor for making and vending said machines, at all of which places it is intended to keep a supply on hand.

Lowville, Nov. 24, 1835. nov 28—6m

COBB'S MANUAL OF CULTURE OF SILK, &c. for sale by
HOYT & PORTER.

[COMMUNICATION.]

KNOWLEDGE IS POWER.

No one at the present day, doubts the importance of a good education. The general diffusion of knowledge contributes more than any thing else to the national welfare. Our own country affords a bright example of the truth of this remark. But great as may be the advantage we have derived from the general education of our population, yet we are very far from having attained to that state of improvement which is desirable. There are but few among us who are not able to read and write, or who have not received the advantage of a common school education. But there are studies which are not introduced into our district schools, which are of great use to every one. An acquaintance with the natural sciences and history has a tendency to make us wiser and happier. The study of those sciences which treat of nature's works, is one of the most useful, and when properly pursued one of the most interesting employments of the mind. Their acquisition would be an unfailing source of amusement and instruction. A knowledge of them would make us acquainted with facts connected with the works of nature, of which we were before wholly ignorant. We shall perceive the marks of omnipotent wisdom and goodness in every natural production we see. Perhaps I shall be accused of exaggeration, but I have tried it myself, and I speak from experience. No one can ever regret the attention he has paid to Mineralogy, Geology, Chemistry, Natural Philosophy, Asonomy or History. Such studies will cultivate the mind and render it susceptible of the highest intellectual gratification, and intellectual gratification is the most abundant source of pleasure. It is not necessary to leave home to obtain knowledge. The perusal of books at home is in many cases as advantageous as a more expensive course of study. I do not mean the perusal of books of a scientific nature, but such as are designed for general information. The most popular work of this kind is the Penny Magazine of the British Society for the diffusion of useful knowledge. And I would advise every person who has a taste for mental cultivation, to procure it the first opportunity. The publications of the society for the diffusion of useful knowledge, of Boston, are eminently calculated to be useful.

The principle fault in the present system of education is to attempt to collect a large number of facts without giving sufficient attention to great features; things are examined in detail before the great principles are understood. It is not so necessary that we should be minutely acquainted with the sciences as that we should be able to define the general characters. T.

The Genie of the Arts.

The following beautiful allegory, by Col. Knapp, was among the stories related at the supper of the American Institute on Thursday evening last. It was received with great applause, and a unanimous call was made that it should be committed to writing, for publication. In pursuance of that demand, Col. Knapp has furnished us a copy, which we lay before our readers.—*N. Y. Com.*

Mr. Knapp's health being drank by the President, he arose and said:—Mr. President—In Eastern countries, in former days, at the festive board, when the Orator had made his speech, and the Poet had finished his song, and the charms of minstrelsy had passed by, the Dervise was called upon for his apologue—one of the vehicles of Eastern instruction. As the humble Dervise of the evening, I will venture upon a *western apologue.*

On this side of the Atlantic, that stern old mother *Necessity* had settled with two daughters, *Agriculture* and *Commerce;* the former raised the sustaining corn by dint of labor, upon a hard unyielding soil, and just brought the year about—the latter ploughed the ocean, scudding along the iron bound coast of North America, picking up the salted fish, lumber, ashes, rice, provisions as they are called—pork and beef—and a few other notions, and carried to the West Indies to market, and then sailed to Europe to purchase the manufactures which they had no means of making. They exhausted nearly all their resources in this merchandise, and saw the same endless prospect before them. This continued for two long centuries, and agriculture and commerce struggled to little purpose; at length a third sister was born by the same mother, she was called the Genie of the Arts. Fairies presided at her birth, wizards cast her horoscope, and propitious stars culminated at the event. The new-born child was scorned by her elder sisters, and they showed their hatred in every form they could. As she grew up she fully understood the situation she held in the family, but was silent and patient, fully determined to win the affections of her sisters. She began to make articles of domestic comfort at first, for household use;—she then gave new hints to Agriculture on the philosophy of husbandry, made her new implements to till the ground, and built her better barns, yards and bins. To Commerce she presented new rudders, rails, cables, and masts, and taught her a more ready method of keeping her nautical reckoning.

They could not be unmindful of her worth, but still, as in all family quarrels, they were not easily appeased—she was hardly acknowledged as one of the family. Commerce brought home new articles from foreign countries, and to teaze and mortify her, just let her have a sight of them; from this glimpse alone, she soon surpassed these articles in delicacy and workmanship.

She created looms, gave the wool new dies—for she seemed to have the power of extracting the azure from the skies, and of infusing all the tints of the rainbow in the produce of her looms. She never unraveled the golden tissues which she had wrought, but made them up fit for royal dames. On gala days she presented splendid dresses to her sisters, wrought by her own hands, which equaled all foreign fabrics, but still they treated her unkindly as the sisters of Cinderella did the "*lovely neglected*" of the family. If at any moment they forgot to chide they never condescended to smile, or to hold any public communion with her; but the industrious and intelligent were her friends, and at all times paid her the most respectful attentions. Sometimes she was seen with a philosopher on one hand, and an artizan on the other, as her devoted admirers much, to the envy of her sisters. She grew in loveliness and grace, and could no longer be left in the back ground. The fairy who presided at her birth would no longer be restrained, and was determined to bring her out. On the next great national ball, she taught her god-daughter to turn the pumpkin to a coach and the mice to horses; to move with grace and elegance through all the mazes of the dance; she then buckled around her waist the enchanting zone, set with a thousand brilliants of modesty and loveliness. *The Genius of the People,* a goodly and gallant youth more powerful than eastern princes, became at once enamored with her charms. He was apprised that her wardrobe was all from her own hand, from the beautiful glass slipper, to the queenly head dress. The *Genius of the People* demanded the *Genie of the Arts* in marriage of her elder sisters. They were astounded, or pretended to be, at the proposal, but taking advice, they gave a reluctant consent to the union. The nuptials were celebrated by every demonstration of joy among the people, who had hailed it as a most propitious alliance. Commerce soon found that she was benefited by the connection; her ships increased, as she became the carrier of the productions of the younger sister to all quarters of the globe, and Agriculture had to enlarge her field, plant new gardens to supply the countless workmen of her industrious sister with food. All three soon became wealthy, and mother Necessity dying, left them a happy family, fully impressed with the belief that on family honors depended their perpetual prosperity and glory. The *Genius of the People* throws his protecting influence over the elder sisters of his chosen spouse, with parental and filial kindness, and the political soothsayers predict that there can never be a family quarrel among them, their interests are so intimately blended.

Toast.—The Genie of the Arts—a mother who grows lovelier as she grows older, and whose fountain of life flows for the nourishment of her offspring in an abundance proportionate to their wants.

THE GENESEE FARMER
AND GARDENER'S JOURNAL.

A weekly Agricultural Paper, published at Rochester, (N. Y.) by LUTHER TUCKER.

SUBSCRIPTIONS are solicited for the Sixth Volume of this well known and popular work, which commences with the year 1836. The Genesee Farmer has been so long before the public, and has attained so high a rank, that the Publisher deems it necessary, in issuing proposals for a new volume, only to say that he has received such assurances from those who have heretofore so kindly aided him, as to warrant him in saying that the Sixth Volume will at least equal any of those which have preceded it.

The Farmer is printed in quarto form, suitable for binding, on fine paper and fair type, making an annual volume, with Title-Page and Index, of 424 pages, at the low price of $2,00 PAYABLE IN ADVANCE. Where the payment is not made in advance, $2,50 will invariably be charged.

☞ No subscription will be received for a less term than six months, and all subscribers must commence with the volume, January 1, or the half volume, July 1.

THE MONTHLY GENESEE FARMER
AND HORTICULTURIST.

Published on the first of each month, in Rochester, (N. Y.) by LUTHER TUCKER.

THE Publisher of the Genesee Farmer, at the solicitation of many friends of Agricultural improvement in Western New York, has issued the first number (for January, 1836,) of a monthly periodical, under the above title, which, while it will embody much of the practical matter of that well established paper, will be furnished to subscribers at the exceeding low price of FIFTY CENTS A YEAR. It is believed that such a work is much wanted to supply those who are unable or unwilling to take a higher priced Agricultural paper, and that its general circulation among our Farmers, cannot fail to promote their private interests as well as the public prosperity. The course and standing of the Genesee Farmer is so extensively known, that it is not necessary to say more than that the Monthly Farmer and Horticulturist will be made up of the most practical and useful articles which appear weekly in that work. It will be handsomely printed, 16 pages octavo to each number, making an annual volume, with Title page and Index, of 200 pages. The payment will in all cases be required IN ADVANCE.

☞ Seven Copies for Three Dollars—Twelve for Five Dollars—or a commission of 20 per cent. allowed to Agents on all sums amounting to $5,00 or more—the money to be sent free of postage.

Rochester, N. Y., January, 1836.

Fisher on the Vine.

OBSERVATIONS on the Culture of the European Vine, to which is added a Manual of the Swiss Vignerons and the art of Wine making, translated from the French—Price 75 cents. For sale by

june 20 HOYT & PORTER.